DOET60"TE609960

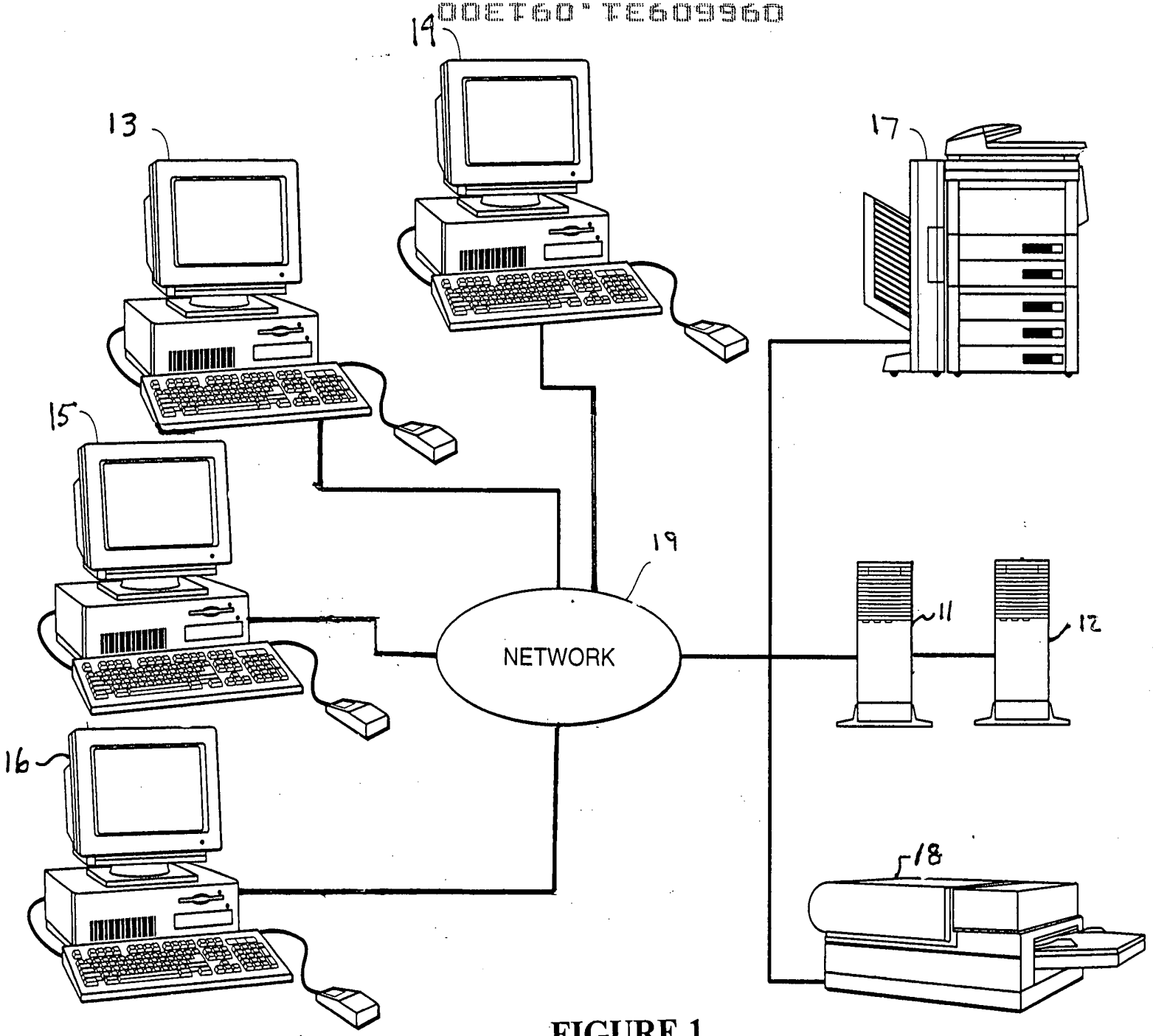

FIGURE 1

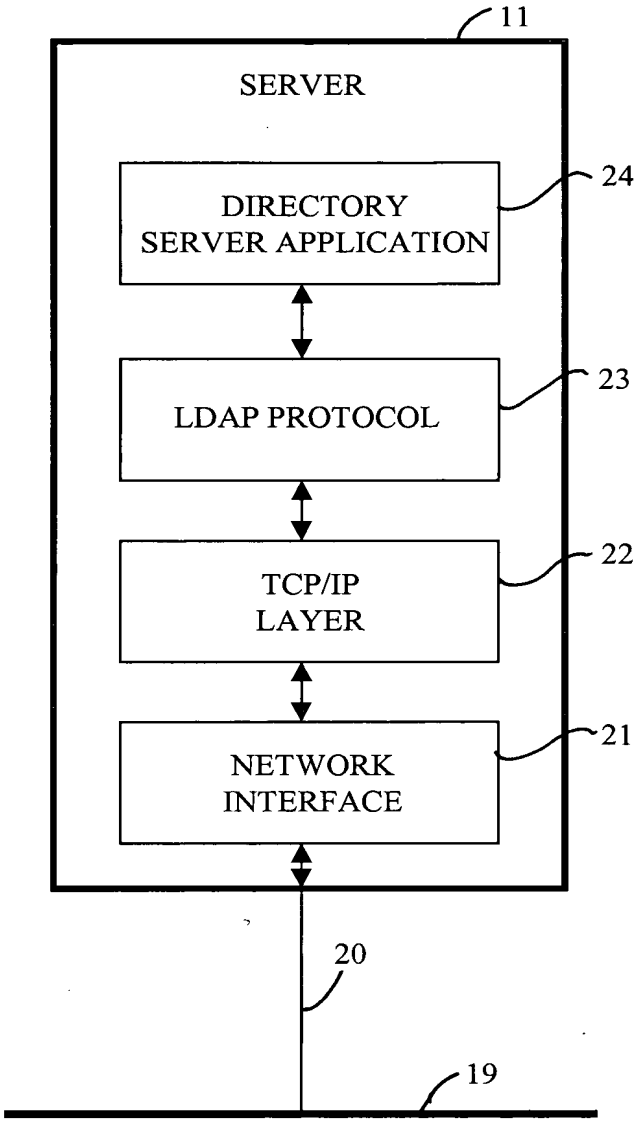
11
SERVER
DIRECTORY SERVER APPLICATION
24
LDAP PROTOCOL
23
TCP/IP LAYER
22
NETWORK INTERFACE
21
20
19

FIGURE 2

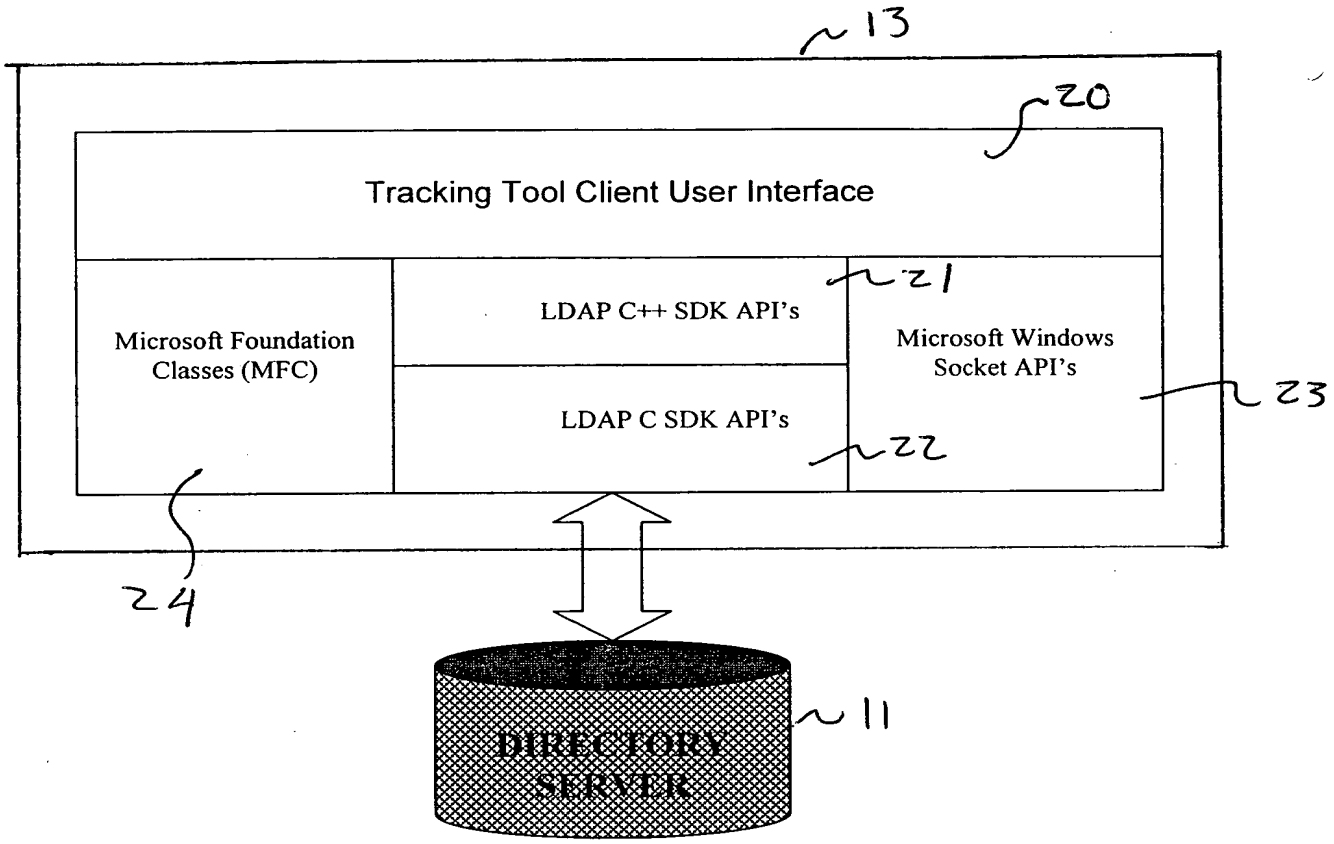

FIGURE 3

09613940 - 051500

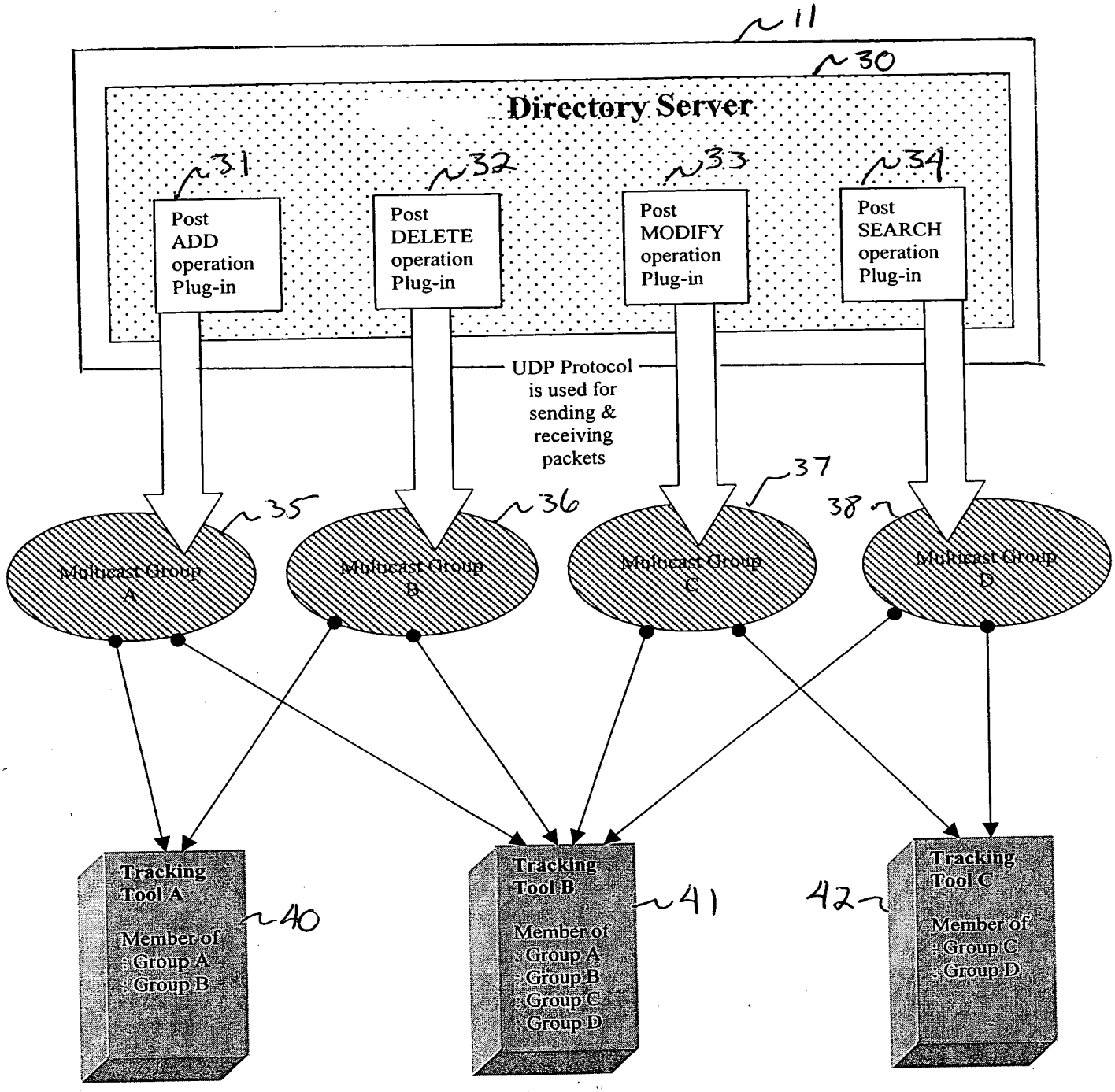
11
30
Directory Server
31
Post ADD operation Plug-in
32
Post DELETE operation Plug-in
33
Post MODIFY operation Plug-in
34
Post SEARCH operation Plug-in
UDP Protocol is used for sending & receiving packets
35
Multicast Group A
36
Multicast Group B
37
Multicast Group C
38
Multicast Group D
Tracking Tool A
Member of
: Group A
: Group B
40
Tracking Tool B
Member of
: Group A
: Group B
: Group C
: Group D
41
42
Tracking Tool C
Member of
: Group C
: Group D

FIGURE 4

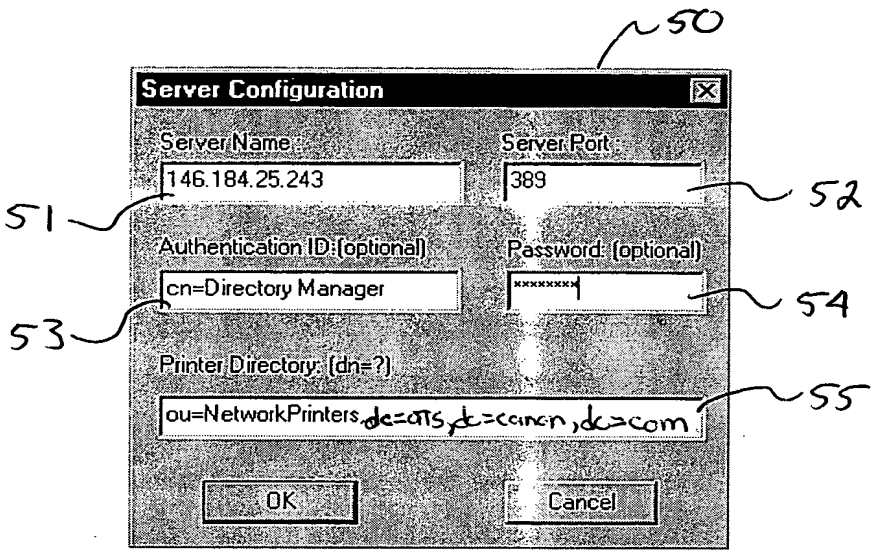

FIGURE 5

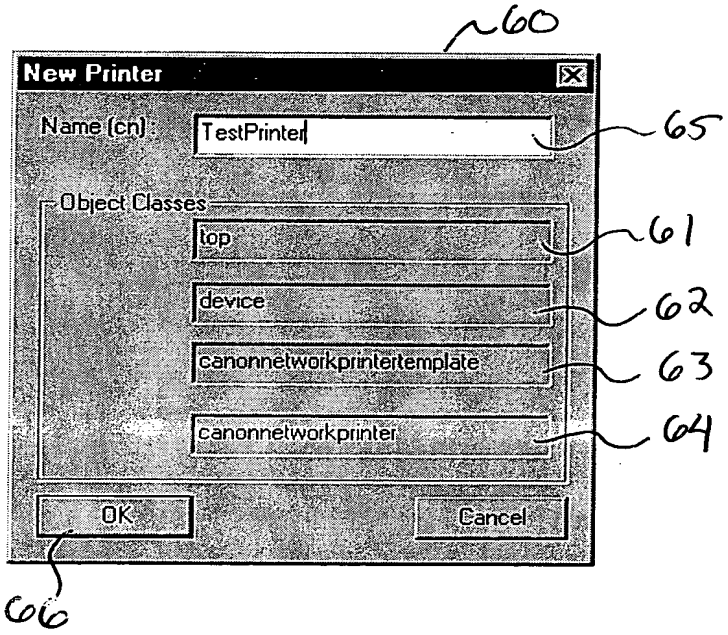

FIGURE 6

0960934 "09609"

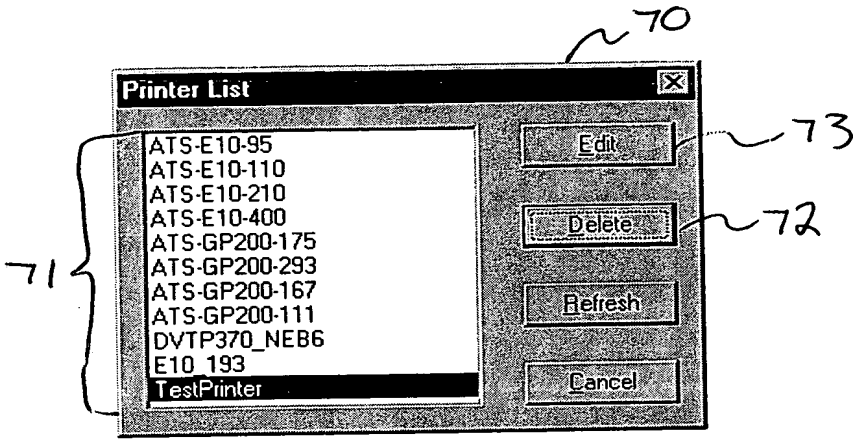

FIGURE 7

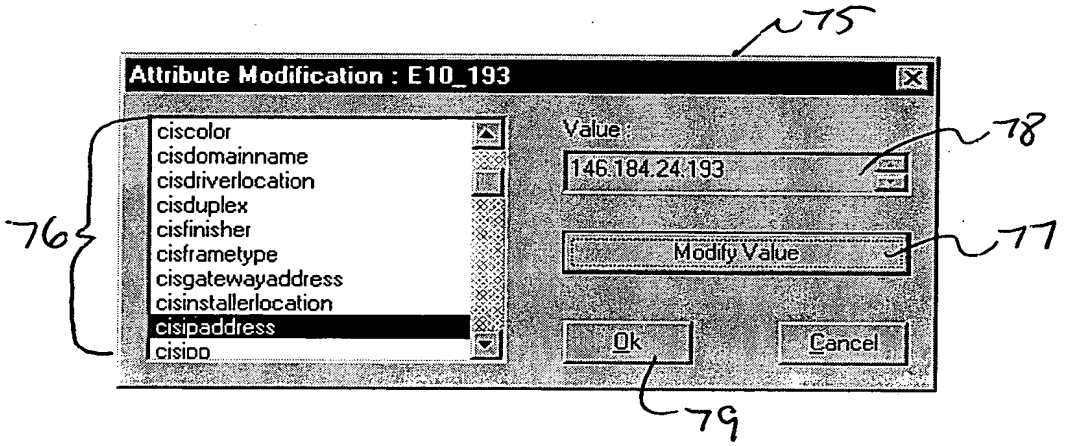

FIGURE 8

0005374.0950900

0065650 - 1660990

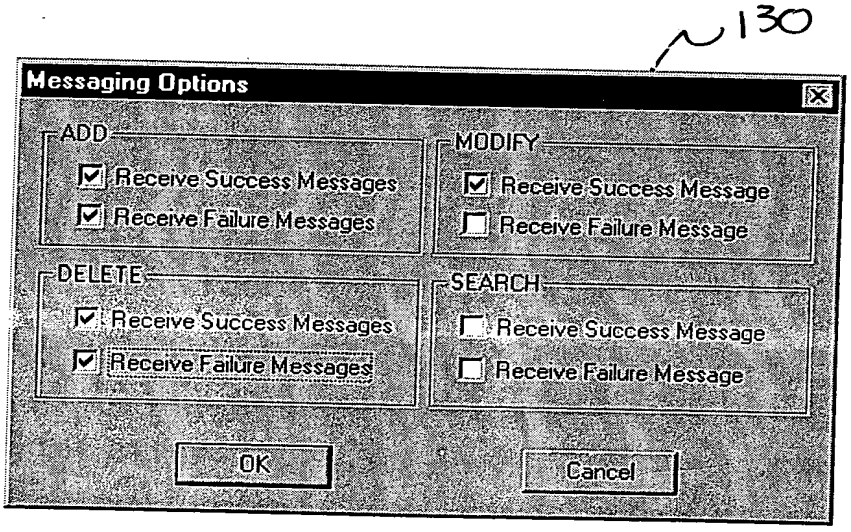

FIGURE 9

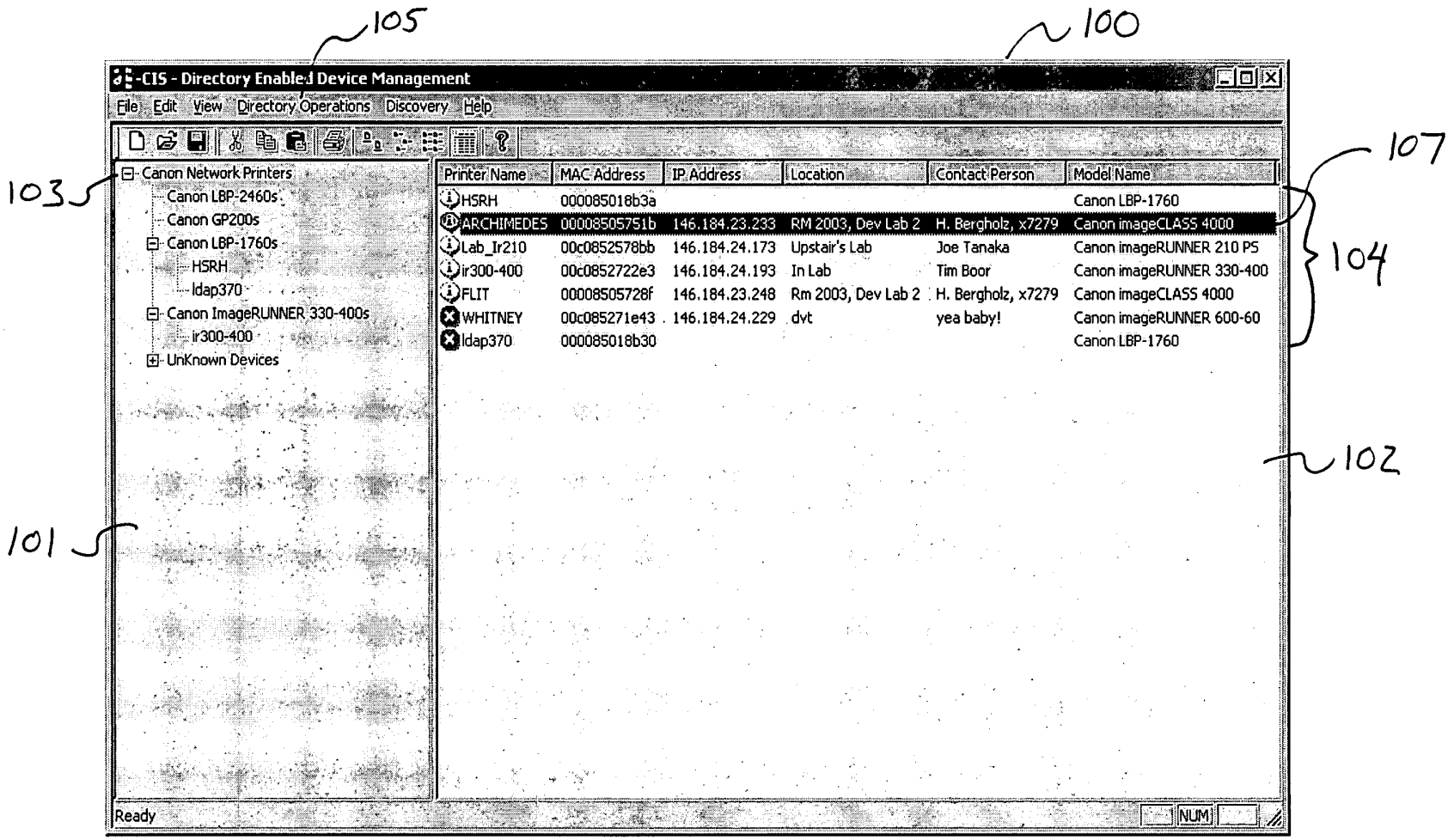
105
100
CIS - Directory Enabled Device Management
File Edit View Directory Operations Discovery Help
103
Canon Network Printers
Canon LBP-2460s
Canon GP200s
Canon LBP-1760s
HSRH
ldap370
Canon ImageRUNNER 330-400s
ir300-400
UnKnown Devices
101
Printer Name | MAC Address | IP Address | Location | Contact Person | Model Name
HSRH 000085018b3a Canon LBP-1760
ARCHIMEDES 00008505751b 146.184.23.233 RM 2003, Dev Lab 2 H. Bergholz, x7279 Canon imageCLASS 4000
Lab_Ir210 00c0852578bb 146.184.24.173 Upstair's Lab Joe Tanaka Canon imageRUNNER 210 PS
ir300-400 00c0852722e3 146.184.24.193 In Lab Tim Boor Canon imageRUNNER 330-400
FLIT 00008505728f 146.184.23.248 Rm 2003, Dev Lab 2 H. Bergholz, x7279 Canon imageCLASS 4000
WHITNEY 00c085271e43 146.184.24.229 dvt yea baby! Canon imageRUNNER 600-60
ldap370 000085018b30 Canon LBP-1760
107
104
102
Ready
NUM

FIGURE 10

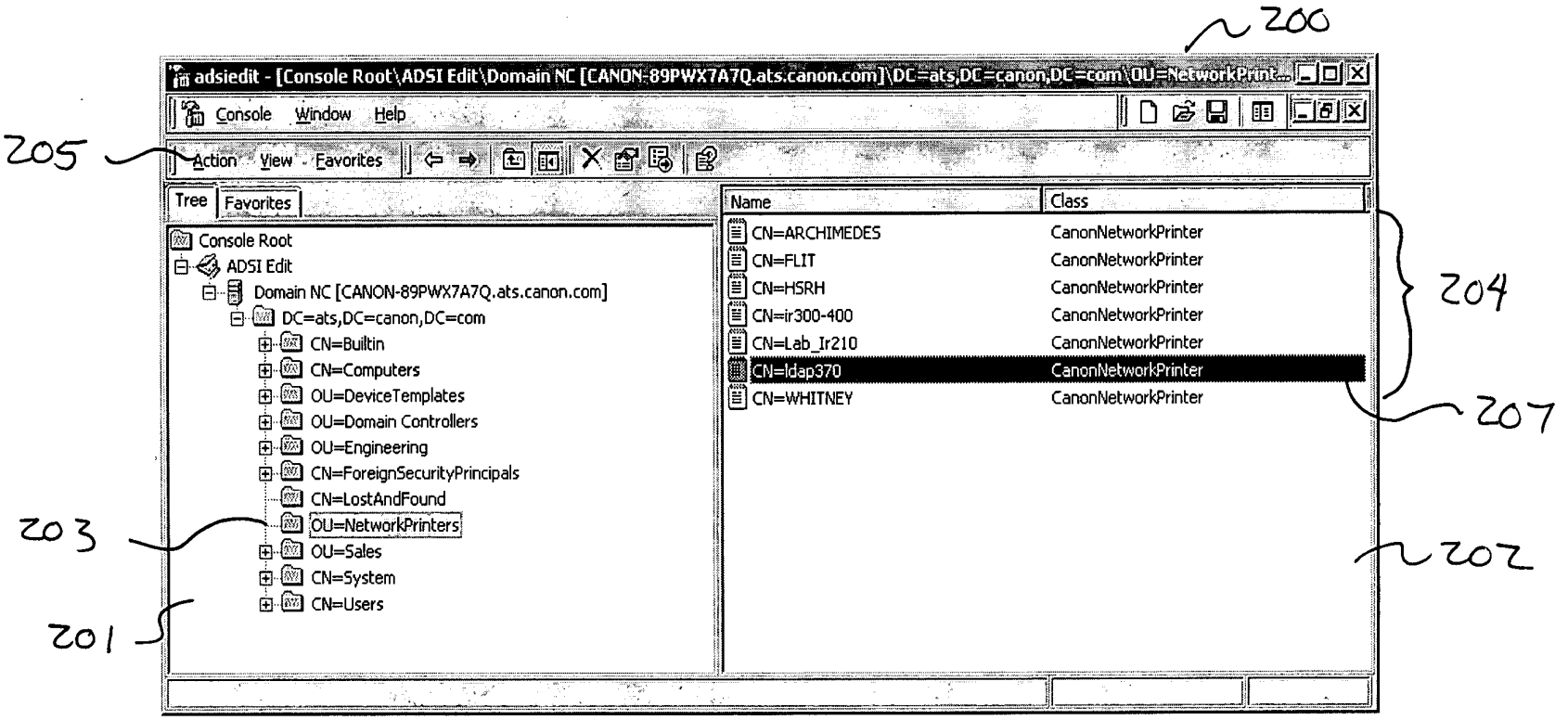
200
adsiedit - [Console Root\ADSI Edit\Domain NC [CANON-89PWX7A7Q.ats.canon.com]\DC=ats,DC=canon,DC=com\OU=NetworkPrint...
Console Window Help
205
Action View Favorites
Tree Favorites
Console Root
ADSI Edit
Domain NC [CANON-89PWX7A7Q.ats.canon.com]
DC=ats,DC=canon,DC=com
CN=Builtin
CN=Computers
OU=DeviceTemplates
OU=Domain Controllers
OU=Engineering
CN=ForeignSecurityPrincipals
CN=LostAndFound
OU=NetworkPrinters
OU=Sales
CN=System
CN=Users
203
201
Name
Class
CN=ARCHIMEDES CanonNetworkPrinter
CN=FLIT CanonNetworkPrinter
CN=HSRH CanonNetworkPrinter
CN=ir300-400 CanonNetworkPrinter
CN=Lab_Ir210 CanonNetworkPrinter
CN=ldap370 CanonNetworkPrinter
CN=WHITNEY CanonNetworkPrinter
204
207
202

FIGURE 11

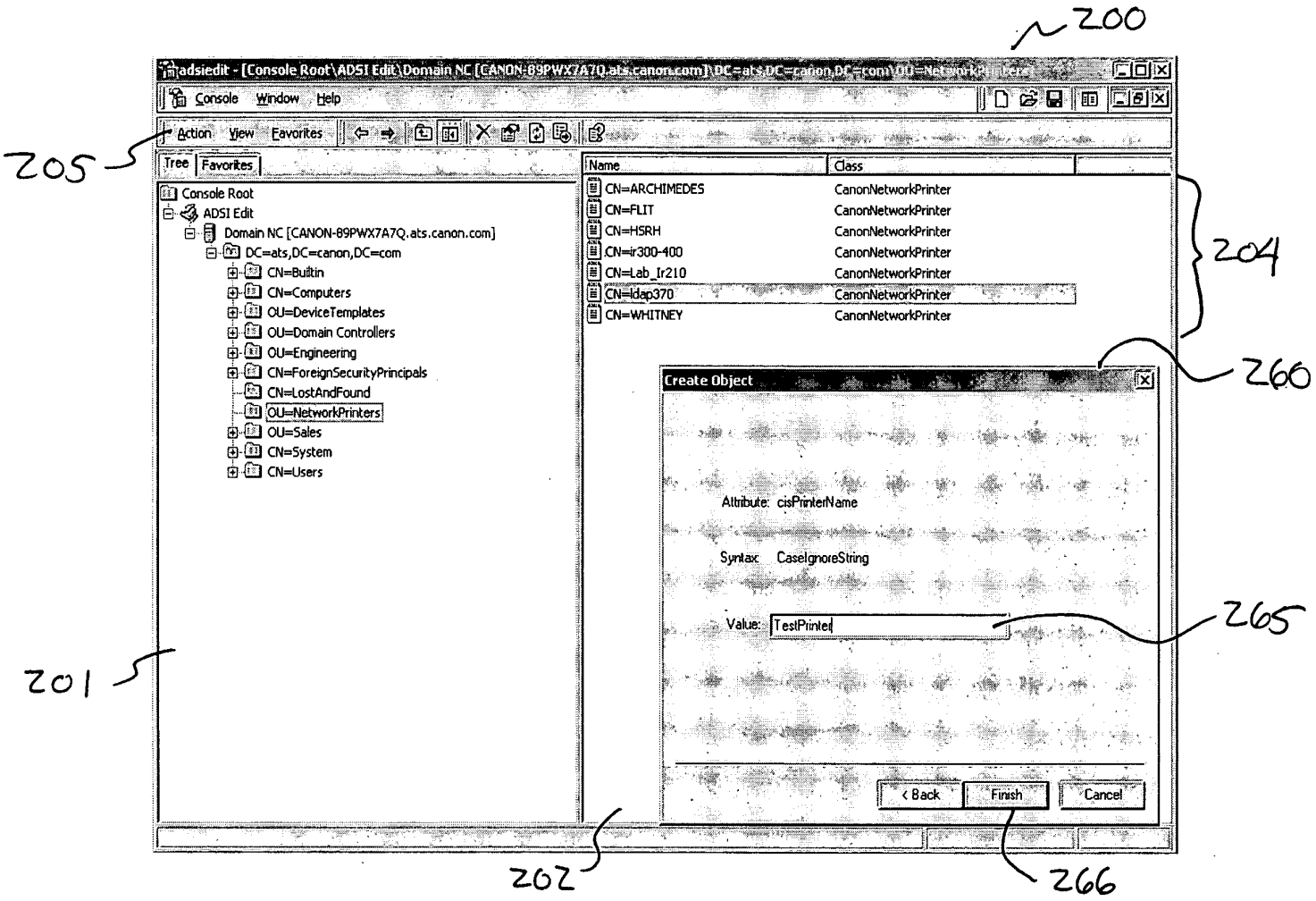
200
adsiedit - [Console Root\ADSI Edit\Domain NC [CANON-89PWX7A7Q.ats.canon.com]\DC=ats,DC=canon,DC=com\OU=NetworkPrinters]
Console Window Help
Action View Favorites
205
Tree Favorites
Console Root
ADSI Edit
Domain NC [CANON-89PWX7A7Q.ats.canon.com]
DC=ats,DC=canon,DC=com
CN=Builtin
CN=Computers
OU=DeviceTemplates
OU=Domain Controllers
OU=Engineering
CN=ForeignSecurityPrincipals
CN=LostAndFound
OU=NetworkPrinters
OU=Sales
CN=System
CN=Users
201
Name Class
CN=ARCHIMEDES CanonNetworkPrinter
CN=FLIT CanonNetworkPrinter
CN=HSRH CanonNetworkPrinter
CN=ir300-400 CanonNetworkPrinter
CN=Lab_Ir210 CanonNetworkPrinter
CN=ldap370 CanonNetworkPrinter
CN=WHITNEY CanonNetworkPrinter
204
260
Create Object
Attribute: cisPrinterName
Syntax: CaseIgnoreString
Value: TestPrinter
265
< Back
Finish
Cancel
202
266

FIGURE 12

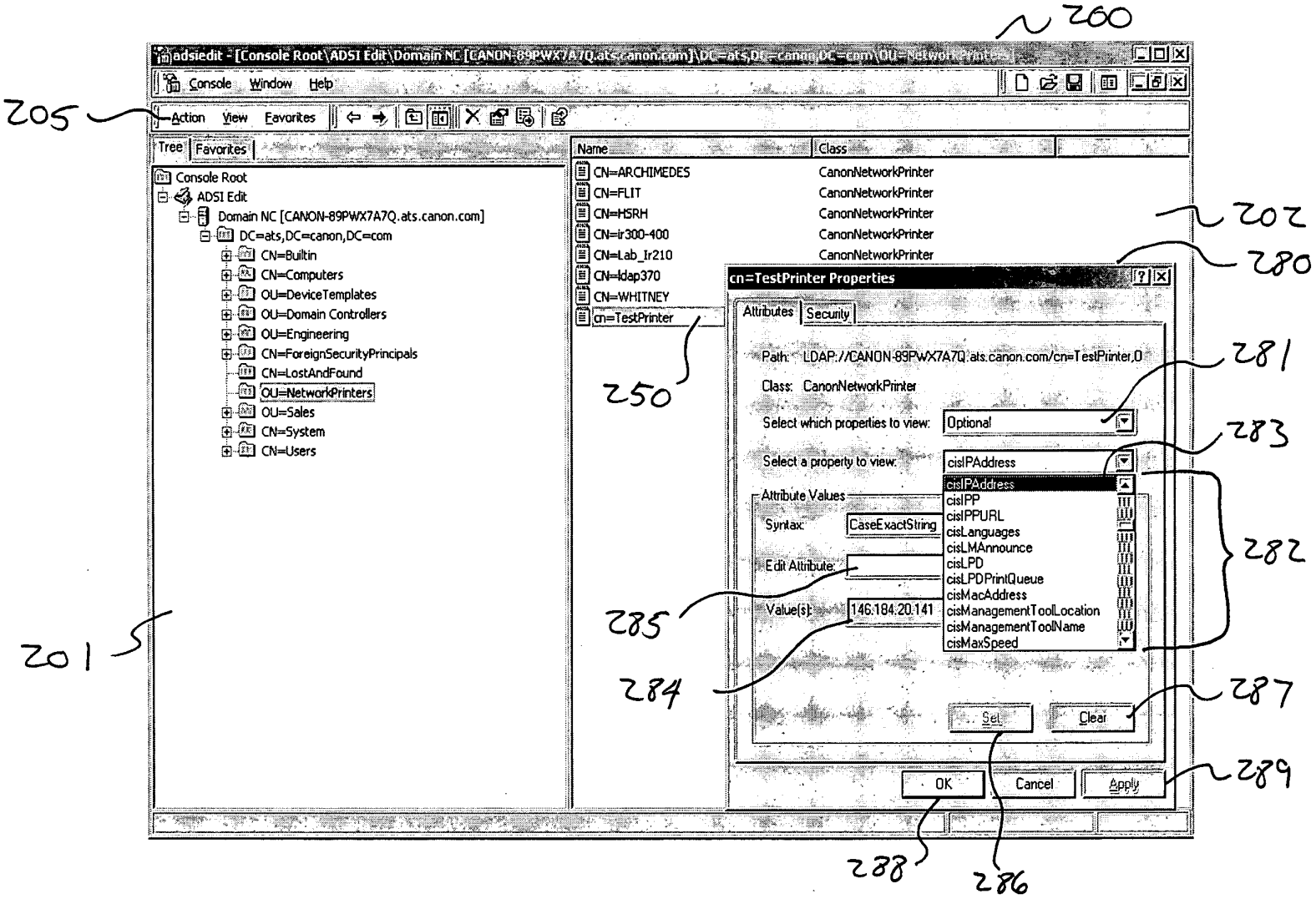
200
adsiedit - [Console Root\ADSI Edit\Domain NC [CANON-89PWX7A7Q.ats.canon.com]\DC=ats,DC=canon,DC=com\OU=NetworkPrinters]
Console Window Help
205
Action View Favorites
Tree Favorites
Console Root
ADSI Edit
Domain NC [CANON-89PWX7A7Q.ats.canon.com]
DC=ats,DC=canon,DC=com
CN=Builtin
CN=Computers
OU=DeviceTemplates
OU=Domain Controllers
OU=Engineering
CN=ForeignSecurityPrincipals
CN=LostAndFound
OU=NetworkPrinters
OU=Sales
CN=System
CN=Users
Name
Class
CN=ARCHIMEDES CanonNetworkPrinter
CN=FLIT CanonNetworkPrinter
CN=HSRH CanonNetworkPrinter
CN=ir300-400 CanonNetworkPrinter
CN=Lab_Ir210 CanonNetworkPrinter
CN=ldap370 CanonNetworkPrinter
CN=WHITNEY CanonNetworkPrinter
cn=TestPrinter CanonNetworkPrinter
202
280
cn=TestPrinter Properties
Attributes Security
Path: LDAP://CANON-89PWX7A7Q.ats.canon.com/cn=TestPrinter,O
Class: CanonNetworkPrinter
Select which properties to view: Optional
281
Select a property to view: cisIPAddress
283
Attribute Values
Syntax: CaseExactString
Edit Attribute:
Value(s): 146:184:20:141
cisIPAddress
cisIPP
cisIPPURL
cisLanguages
cisLMAnnounce
cisLPD
cisLPDPrintQueue
cisMacAddress
cisManagementToolLocation
cisManagementToolName
cisMaxSpeed
282
250
285
284
201
287
Set
Clear
OK
Cancel
Apply
289
288
286

FIGURE 13

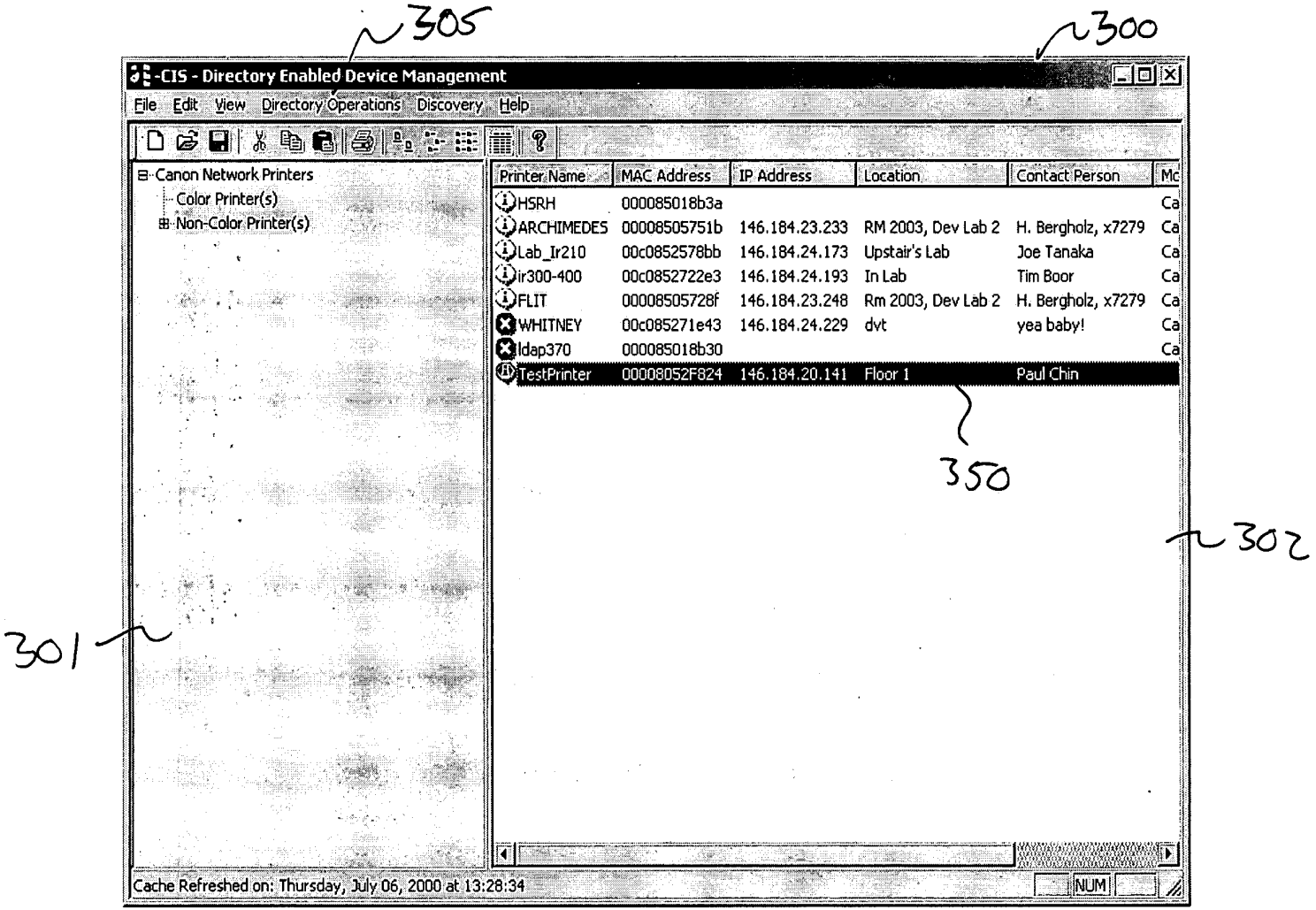
305
300
-CIS - Directory Enabled Device Management
File Edit View Directory Operations Discovery Help
Canon Network Printers
Color Printer(s)
Non-Color Printer(s)
Printer Name | MAC Address | IP Address | Location | Contact Person | Mc
HSRH 000085018b3a Ca
ARCHIMEDES 00008505751b 146.184.23.233 RM 2003, Dev Lab 2 H. Bergholz, x7279 Ca
Lab_Ir210 00c0852578bb 146.184.24.173 Upstair's Lab Joe Tanaka Ca
ir300-400 00c0852722e3 146.184.24.193 In Lab Tim Boor Ca
FLIT 00008505728f 146.184.23.248 Rm 2003, Dev Lab 2 H. Bergholz, x7279 Ca
WHITNEY 00c085271e43 146.184.24.229 dvt yea baby! Ca
ldap370 000085018b30 Ca
TestPrinter 00008052F824 146.184.20.141 Floor 1 Paul Chin
350
302
301
Cache Refreshed on: Thursday, July 06, 2000 at 13:28:34
NUM

FIGURE 14

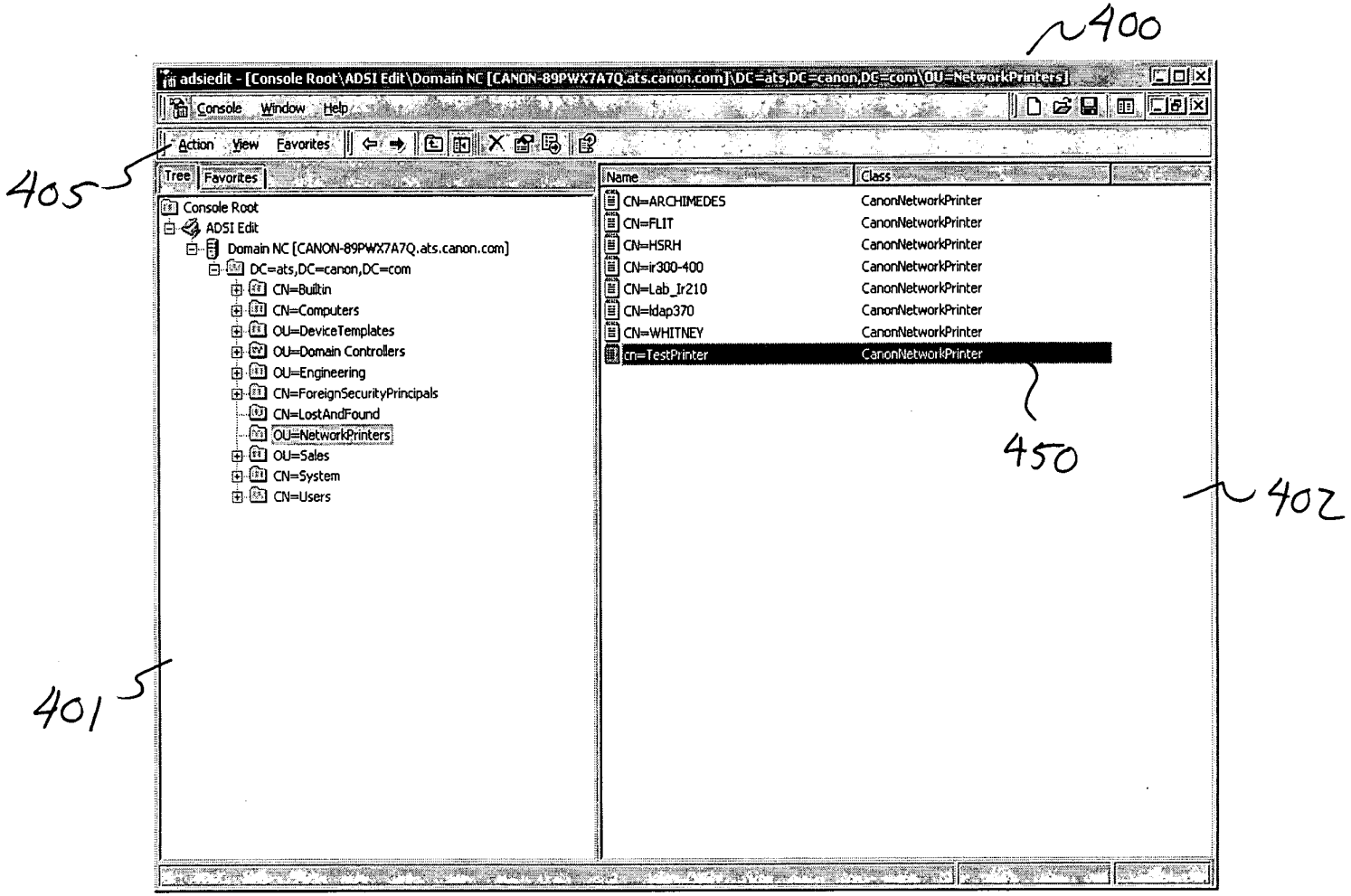
400
405
401
402
450
adsiedit - [Console Root\ADSI Edit\Domain NC [CANON-89PWX7A7Q.ats.canon.com]\DC=ats,DC=canon,DC=com\OU=NetworkPrinters]
Console Window Help
Action View Favorites
Tree Favorites
Console Root
ADSI Edit
Domain NC [CANON-89PWX7A7Q.ats.canon.com]
DC=ats,DC=canon,DC=com
CN=Builtin
CN=Computers
OU=DeviceTemplates
OU=Domain Controllers
OU=Engineering
CN=ForeignSecurityPrincipals
CN=LostAndFound
OU=NetworkPrinters
OU=Sales
CN=System
CN=Users
Name
Class
CN=ARCHIMEDES CanonNetworkPrinter
CN=FLIT CanonNetworkPrinter
CN=HSRH CanonNetworkPrinter
CN=ir300-400 CanonNetworkPrinter
CN=Lab_Ir210 CanonNetworkPrinter
CN=ldap370 CanonNetworkPrinter
CN=WHITNEY CanonNetworkPrinter
cn=TestPrinter CanonNetworkPrinter

FIGURE 15

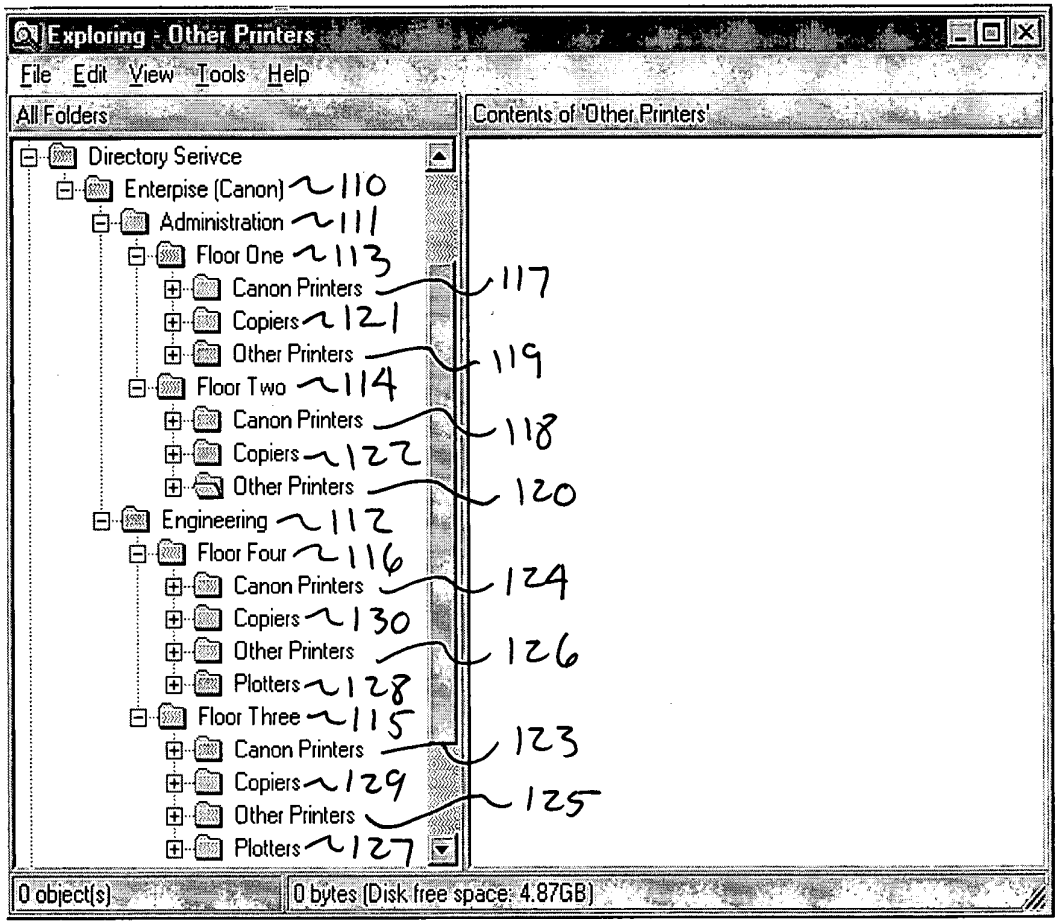
Exploring - Other Printers
File Edit View Tools Help
All Folders
Contents of 'Other Printers'
Directory Serivce
Enterpise (Canon) 110
Administration 111
Floor One 113
Canon Printers
Copiers 121
Other Printers
Floor Two 114
Canon Printers
Copiers 122
Other Printers
Engineering 112
Floor Four 116
Canon Printers
Copiers 130
Other Printers
Plotters 128
Floor Three 115
Canon Printers
Copiers 129
Other Printers
Plotters 127
117
119
118
120
124
126
123
125
0 object(s)
0 bytes (Disk free space: 4.87GB)

FIGURE 16

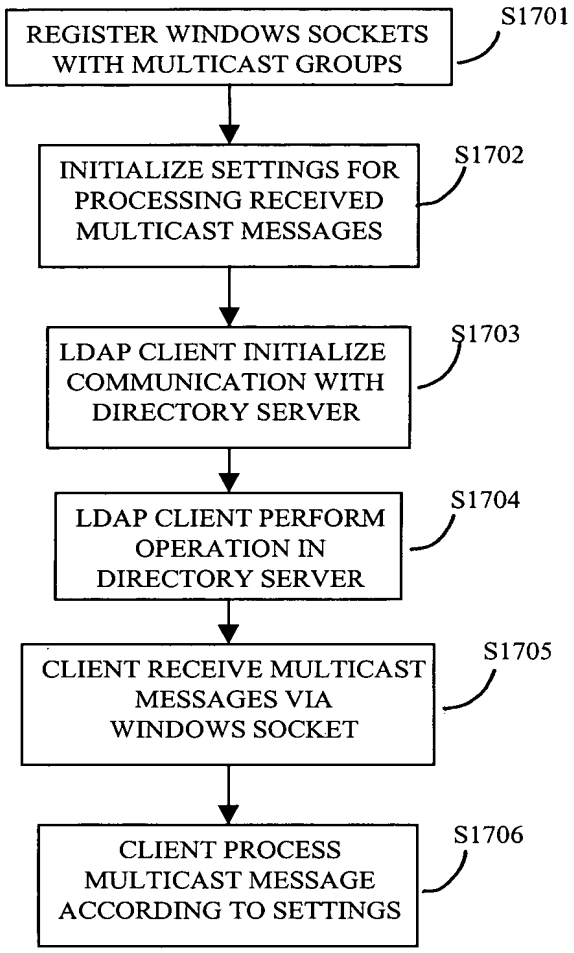
REGISTER WINDOWS SOCKETS WITH MULTICAST GROUPS
S1701
INITIALIZE SETTINGS FOR PROCESSING RECEIVED MULTICAST MESSAGES
S1702
LDAP CLIENT INITIALIZE COMMUNICATION WITH DIRECTORY SERVER
S1703
LDAP CLIENT PERFORM OPERATION IN DIRECTORY SERVER
S1704
CLIENT RECEIVE MULTICAST MESSAGES VIA WINDOWS SOCKET
S1705
CLIENT PROCESS MULTICAST MESSAGE ACCORDING TO SETTINGS
S1706

FIGURE 17

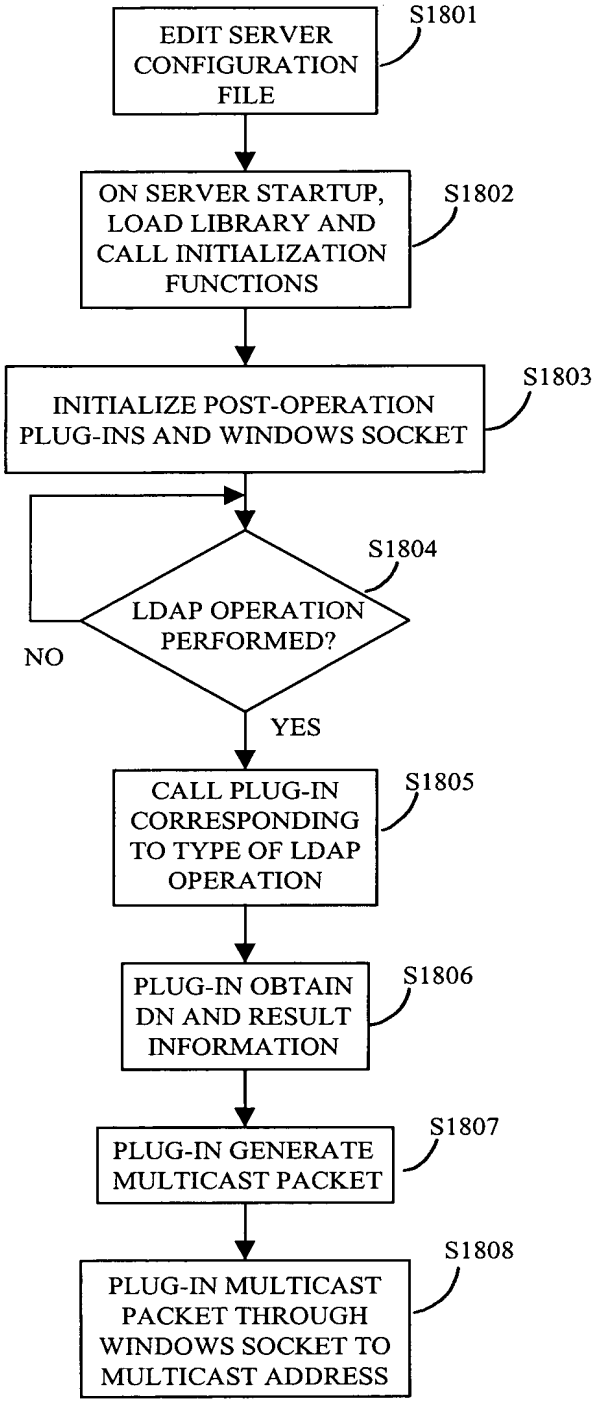
EDIT SERVER CONFIGURATION FILE
S1801
ON SERVER STARTUP, LOAD LIBRARY AND CALL INITIALIZATION FUNCTIONS
S1802
INITIALIZE POST-OPERATION PLUG-INS AND WINDOWS SOCKET
S1803
LDAP OPERATION PERFORMED?
S1804
NO
YES
CALL PLUG-IN CORRESPONDING TO TYPE OF LDAP OPERATION
S1805
PLUG-IN OBTAIN DN AND RESULT INFORMATION
S1806
PLUG-IN GENERATE MULTICAST PACKET
S1807
PLUG-IN MULTICAST PACKET THROUGH WINDOWS SOCKET TO MULTICAST ADDRESS
S1808

FIGURE 18